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Angiotensin converting enzyme inhibitor - composed of a tripeptide with  
C-terminal aromatic aminoacid, used for prevention and treatment of  
hypertension

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Number of Countries: 001 Number of Patents: 001  
Patent Family:

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JP 6016568	A	19940125	JP 92260550	A	19920904	A61K-037/64	199408 B

Priority Applications (No Type Date): JP 91262537 A 19910917

Patent Details:

Patent	Kind	Lan	Pg	Filing Notes	Application	Patent
JP 6016568	A		5			

Abstract (Basic): JP 6016568 A

The inhibitor consists of a tripeptide in which the C-terminal  
aminoacid is aromatic, pref. Trp.

USE/ADVANTAGE - The inhibitor is useful as a drug or a specific  
health food for the prevention and inhibition of hypertension.

In an example, 6.7g of wheat gluten contg. 70% moisture were  
dissolved in 200ml of 2N acetic acid and the soln. was adjusted to a pH  
of 3.5 with HCl. Pepsin of protein wt. ratio 1.250 was added to  
hydrolyse it at 37 deg.C for 24 hrs. The hydrolysate was then heated at  
100 deg.C for 10 mins. to inactivate pepsin and freeze dried to give  
2.0g of pepsin decomposed powder. It was again dissolved in 20ml of  
0.02N acetic acid and gel filtered by a Sephadex G-25 column. The peak  
eluted last was collected and freeze dried. 250mg of the resultant  
powder was gel filtered by a Sephadex G-10 column. The peak eluted last  
was collected and conc. in vacuo. The concentrate was subjected to a  
reversed phase HPLC (Cosmosil 5D18AR) and eluted by acetonitrile concn.  
gradient in 0.05% trifluoroacetic acid. The active fraction was again  
subjected to a reversed phase HPLC of acetonitrile concn. gradient  
elution twice to give 0.2mg tripeptide, Ile-Ile-Tyr. The ACE inhibiting  
activity, IC50, of the peptide was 3.7 microns.

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Title Terms: ANGIOTENSIN; CONVERT; ENZYME; INHIBIT; COMPOSE; TERMINAL;  
AROMATIC; AMINOACID; PREVENT; TREAT; HYPERTENSIVE

Derwent Class: B04; B05

International Patent Class (Main): A61K-037/64

International Patent Class (Additional): A23L-001/305; A61K-037/18;

C07K-005/08; C12N-009/99; C12P-021/06

File Segment: CPI